



March 31st, 2023

Via Electronic Submission

Ms. Vanessa A. Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 205499–1090
rule-comments@sec.gov

Re: Rule Proposal No. 34-96495; File No. S7-31-22 Order Competition Rule

Ms. Countryman:

Babelfish Analytics (“Babelfish”) appreciates the opportunity to comment on the U.S. Securities and Exchange Commission’s (the “SEC” or “Commission”) Order Competition Rule Proposal (the “OCR Proposal”).

Babelfish provides analysis and consulting services to Money Managers, Investors, Brokers, and Trading Venues to measure the impact of execution decisions. By creating transparency in this once opaque marketplace, Babelfish Analytics provides trading professionals with a greater understanding of routing and brokers with a framework to improve their client’s execution experience. We are the only firm receive data from every institutional broker that offers trading algorithms to their clients.

Our firm is 100% employee owned and offers no services other than analytics. Being without conflicts allows us the freedom to provide purely data driven analysis. Through our work, we are in a unique position to work with some of the world’s largest mutual funds and pension funds and evaluate their algorithmic trading data. The granular data that we access is provided from the largest and most diverse brokers in the United States. There is no other firm in existence that has access to the breadth of algorithmic data that is currently available to Babelfish Analytics.

In early 2020, when the amount of trading between wholesalers and retailer brokers began to regularly exceed 25% of the marketplace, Babelfish observed that it became three times as costly for mutual and pension funds to trade stocks with high concentrations of retail activity.¹ Similar

¹“Meme Stocks: Inaccessible Trading Share, Trading Cost, and Risk”, Linda Giordano and Jeffrey Alexander, Babelfish Analytics, Feb 2021, <https://www.babelfishanalytics.com/news/2021/2/4/meme-stocks-inaccessible-trading-share-trading-cost-and-risk>



results were observed by other market microstructure experts². Costs increased because institutional investors could not access significant liquidity in some of the most widely traded stocks in the world. Up to 40% of the shares in Amazon, Ford, Boeing, and other “household names” are inaccessible due to payment-for-order flow (PFOF) arrangements. This disrupts price discovery on public exchanges, encumbers liquidity in dark pools, and creates conditions where institutional investors have greater difficulty controlling market impact. This results in worse execution prices and decreased returns. **As long as access to retail flow continues to be restricted, the harm to mutual fund and pension fund investors is ongoing.**

We believe that it is critical that institutional investors are able to more directly access retail flow. However, we realize that wholesalers play a critical role in supporting retail investors. PFOF arrangements guarantee instant execution a fill at a price that is often better than the price available on an exchange, and they often provide the retail investor with more shares than available on an exchange. It is an uninformed argument to say that PFOF disregards execution quality. However, as the retail investing segment has increased significantly, it is time to reassess market structure and correct uneven advantages. We believe that disintermediating access between individual retail investors and mutual and pension fund investors will allow for more benefit and a fairer marketplace.

Retail Investors Deserve More

Retail flow is considered extremely valuable due to its unaffiliated and uncorrelated nature. Every class of market participant would prefer to trade against a retail investor than against any other class of liquidity. For example, any mutual fund would rather buy 100 shares of a stock from a retail investor than from a market maker, an exchange, or even from another mutual fund. The desirability of these orders means that there are numerous counterparties willing to pay more in order to trade against them.

PFOF arrangements, however, capture the majority of flow from a retail broker and direct it to a wholesaler. If a retail firm sends a Tesla order to a wholesaler, the wholesaler is the sole arbiter of price, as long as that price is no worse than the NBBO. A buy order for 100 shares may come back with a price of 191.92 when buying it on an exchange would cost the individual investor 191.93. We

² “Cowen Market Structure: Retail Trading – What’s going on, what may change, and what can you do about it?”, Jennifer Hadiaris, Mar 23 2021, <https://www.cowen.com/insights/retail-trading-whats-going-on-what-may-change-and-what-can-institutional-traders-do-about-it/>

Virtu Global Equity Cost Review, U.S. Large Cap IS and Broker Cost, page 8. This analysis does not focus solely on high retail stocks, however the uptick in large-cap costs is due to the difficulty in trading stocks with a high retail share, for which there is a significant overlap with large-cap. Note that this is a cumulative report and the most recent public report is 4Q2021 and it contains the 2020 period. More recent reports are non-public. [https://virtu-www.s3.amazonaws.com/uploads/documents/Virtu EQ GlobalCostReview 4Q2021.pdf](https://virtu-www.s3.amazonaws.com/uploads/documents/Virtu_EQ_GlobalCostReview_4Q2021.pdf)



are unable to ascertain if a retail investor would have done better if all **market participants bid** on each individual order. In the example above, there may have been multiple counterparties willing to sell the stock to the retail investor at 191.91 (or even less), but they would never get the opportunity to do so. As a result, both the retail investor and the counterparty who would have sold the stock to the investor will receive worse prices.

Wholesalers argue that they provide substantial and consistent price improvement. However, price improvement is skewed toward more widely traded stocks. Figure 1 lists the stocks with the most price improvement for marketable orders³ from January 2020 through December 2022⁴.

Figure 1: Stocks with most price improvement for marketable orders from January 2020 through December 2022⁴

1. Tesla Inc (TSLA)
2. Amazon.com Inc (AMZN)
3. NVIDIA Corporation (NVDA)
4. Shopify Inc (SHOP)
5. Moderna Inc (MRNA)
6. Boeing Co (BA)
7. Roku Inc (ROKU)
8. Netflix Inc (NFLX)
9. Advanced Micro Devices Inc (AMD)
10. Apple Inc (AAPL)

These ten names represent almost 20% of all price improvement in marketable orders.ⁱ In addition, 200 names drive half of all marketable order price improvement (and under 600 names drive two-thirds of price improvement.)

³ It is important to note there are significant and substantial differences between spread provided to marketable orders and marketable limit orders. Although these orders should receive similar execution quality because wholesalers will say that the orders are not treated differently, marketable orders receive approximately three times as much spread as marketable limit orders (Source:605 reports for Virtu and Citadel):



⁴ Source: 605 data for Virtu and Citadel.



Figure 2 displays cumulative price improvement as a percentage of all price improvement provided by wholesalers over the same period. 50% of the total price improvement is concentrated in the largest 200 names and 75% in the largest 1000. It is clear that the provision of price improvement is concentrated in a select number of the most widely traded stocks.

We argue that PFOF arrangements are not necessary for these widely traded names. Retail brokers claim that the ancillary benefits that wholesalers provide, namely guarantee of immediate execution and price improvement, are critical. If the U.S. markets are truly the most efficient in the world, the fact that gatekeeper control of such a significant amount of activity in the most widely traded companies has been ceded to a small oligopoly of firms signals that not only that the current market is not only inefficient and costly, but fragile and risky.

What about more “difficult” stocks?

Wholesalers are willing to provide better price improvement to some retail firms because of the unique characteristics of their “portfolio” of client trading activity.

If a retail brokers’ mix of activity is skewed towards the better rankings in Figure 3, they will receive a more lucrative PI deal from a wholesaler than a retailer that attracts clients that transact in stocks that are difficult to trade—or the worse rankings. To put it another way, when you buy car insurance, the price is based on your perceived risk of the insurance company paying out a claim on your behalf. The company will give a careful driver, who has a spotless driving record, a significantly better rate than a

Figure 2: Cumulative Price Improvement as a % of All Price Improvement Provided By Wholesalers Marketable Orders, Jan 2020 to Dec 2022

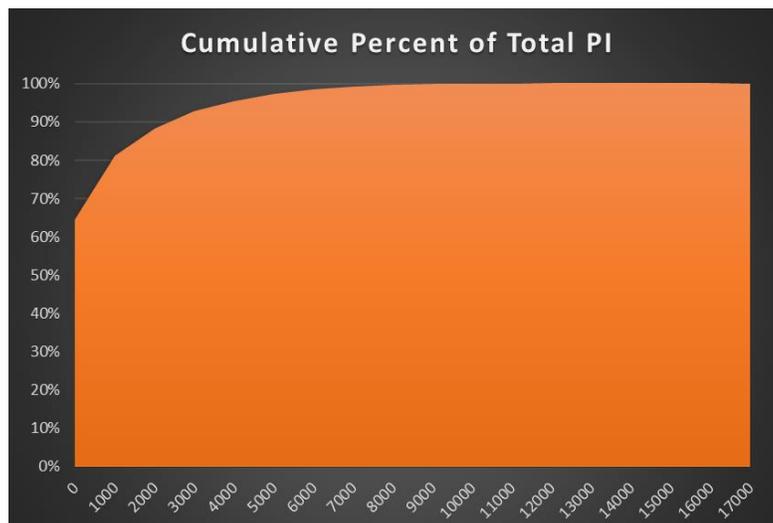


Figure 3: Price Improvement by Security, Ranked, Jan 20202 to Dec 2022





problematic driver, who has totaled three cars in the past few years. If insurance companies were forced to give the same rates to all potential customers, the good driver would receive worse rates to compensate for the increased risk of payout from risky drivers. By interacting with retail directly, the wholesalers are able to quote on price to “good” brokers and another to “risky” brokers (or they may decline to interact with brokers with “riskier” profiles entirely.)

The Buy Side can provide more price improvement

Institutional buy side firms usually have a different objective than retail investors. The primary and typically contrary objectives of a buy-side trader are to preserve the balance between obtaining liquidity and controlling market impact. A large part of a buy side traders time is consumed with staging large orders, usually involving slicing up bigger pieces into smaller pieces and analyzing which venues are more appropriate given the security, urgency, current conditions, side, size, and other constraints. This endeavor is typically aided by complex, broker-provided algorithms, all with the goal of containing information leakage while maximizing liquidity access. Because of this, spread costs are less meaningful to a buy side trader if paying more of the spread means that it can help achieve one or both of these often conflicting requirements.

Half of all market value traded in “liquidity seeking” algorithms are traded at midpoint⁵ where the counterparty is unknown and more informed than retail. These traders are even willing to pay full spread if size and urgency are at stake, however these orders are typically routed to ATS destinations, such as broker dark pools. Currently, individual retail investors are not directly exposed to this flow. The opportunity to gain half or more of the spread is very limited for retail investors.

Exchanges are a “destination of last resort”

The Commission’s proposal to establish a qualified auction mechanism is ambitious and could provide a solution, however we are unsure if the concept integrates well into the structure of a public exchange. Currently, exchanges are the trading destination of last resort for buy-side traders. While high fill rates are a common occurrence, trading on an exchange comes with significant cost. Both short term measures like reversion to longer-term impact associated with exchange trading are higher. It goes without saying that exchanges are necessary, especially when liquidity is the primary concern, but if urgency isn’t a priority exchanges are avoided.

Post-trade attribution is a primary cause of information leakage. In our consulting practice, we see substantial evidence that fills on exchanges result in adverse price movement. This is the trade-off for higher fill. Institutional investors accumulating or unwinding large positions over time frequently need to avoid creating information leakage because it can result in hundreds of basis points of market

⁵ Based on estimates observed in Babelfish trading data, Jan 2020 to Dec 2022.



impact, severely impairing returns. While the opportunity to directly access unadulterated retail liquidity is highly desirable to institutions, the value will be diluted if it comes with the requirement that fills are printed and attributed. Post-trade attribution comes with the complication that trades can be reidentified and that can be extremely costly. Printing to an ATF may help to delay/prevent some of the information leakage and encourage institutional participation.

Wholesalers Offer Cherrypicked Access To Retail

Wholesalers may provide firms access to their retail book provided the firm trades in a manner that is advantageous to the wholesaler. These types of offers are limited and are typically in conjunction with substantial usage of other wholesaler products, such as algorithms, single-dealer platforms (SDP), or risk. This kind of gatekeeping does not provide sufficient access to their retail book for the vast majority of institutional buy-side firms.

Many buy-side algos can access SDPs and wholesalers promote this access as a way interact with retail.⁶ However, this isn't direct access. This flow has already passed through the wholesaler and interaction with it requires relinquishing identity and information about your order⁷ to the market making firm. A well respected academic study found that this is costly.⁸ Although SDPs have benefits, because of the costs and risks involved most buy-side firms can only use SDPs in a limited manner.

An Alternative Solution

In August 2021, The Major League Baseball Players Association and Major League Baseball consummated a deal with Fanatics to be the exclusive provider of baseball cards. The deal with Topps, who had been making baseball cards for 70 years, was a fine one, and brought the MLBPA over 20 million dollars in 2020 and Fanatics had no experience with baseball cards.

This deal allowed MLBPA, MLB, and the players to unlock their true value, rather than allowing it to be dictated to them by one of a small number of firms that make trading cards. A new company was formed, which made MLB and MLBPA part owners and allowed them to participate in the upside, with expected benefits over 10 times the value of the Topps deal.

Exchanges seem to have predictably argued against the creation of an auction and we agree. An auction combines the opportunity for gaming with the inferior execution quality provided by

⁶ Virtu provides direct access to retail flow on a limited basis, but that is a premium service not offered to all.

⁷ If a buy side firm repeatedly interacts with the SDP, patterns about their parent order will quickly emerge

⁸ "In the most conservative case, our results suggest that if 1% of a parent order is routed to ELPs instead of the stock exchanges, the implementation shortfall for the order will increase by roughly 12%." Battalio, Hatch, Saglam The Cost of Exposing Large Institutional Orders to Electronic Liquidity Providers, <http://faculty.bus.olemiss.edu/rvanness/Speakers/Presentations%202020-2021/Battalio-elp.pdf>



exchanges. A superior alternative is for retail firms to set up their own facility and charge an access fee to firms that want to interact with retail liquidity.

This facility should have an order book, with participants setting a RBBO (retail best bid and offer). The result would be executable quotes for retail firms, eliminating both the uncertainty of execution with an auction as well as the need for a mid quote exemption. The RBBO would allow the market to determine the value of purely retail flow, preserving its value and result in the open competition that the largest and most liquid marketplace in the world deserves.

The ownership stake would give them something of value, the access fees would replace PFOF to retail firms, and potential counterparties would be abundant. Counterparties would range from institutional investors to proprietary trading shops and even wholesalers.

Preventing retail investors from interacting directly with the buy side and others market participants has substantial costs to those firms who now have to interact directly or indirectly with middlemen. It harms mutual and pension funds and also costs the retail investor who trades those names. While the desire to give price improvement on most orders is admirable in theory robbing Peter (who trades Tesla) in order to pay Paul (who wants to day trade illiquid securities) has a substantial negative impact on the market as a whole.

We would welcome the opportunity to discuss this letter and engage in further dialogue with the Commission on these topics.

Respectfully submitted,

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Jeffrey Alexander
Founder & President
Babelfish Analytics, Inc.

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Linda Giordano
Founder & CEO
Babelfish Analytics, Inc.



Endnotes

ⁱ A Note About Data

All analysis of retail brokers and wholesalers in this letter was based on publicly available data, but note that there are no publicly available datasets consisting of solely retail orders. Retail brokers provide 606 reports, which show where orders are sent and how much they are paid (PFOF) for sending orders to that venue. They also usually provide some very high level numbers on their websites that will provide some aggregate statistics.

Wholesalers, exchanges, dark pools, and other execution venues create quality reports called “605 Reports”. These reports provide quality metrics on a security, order type, order size basis. For example, if you want to see Citadel execution quality on 100-499 share marketable orders, that data is contained in a 605 report. These reports have some value, but are plagued by many issues including:

- They are missing key pieces of information (for example, executions under 100 shares)
- They have categories inconsistent with current market structure (the definition of the near the quote order type and average realized spread)
- They are not granular enough. Multiple execution facilities can be included in a single report – for example, a wholesaler combines retail flow with flow from their single dealer platform and other venues
- Poor quality control – there are numerous execution venues that regularly put out erroneous data only to correct it months later. An exchange released a 605 report in late December 2021 that only contained marketable orders on 269 securities. It took them almost a year to put a corrected file on their website.

It would be helpful if there could be a natural Venn Diagram between these two reports that allows you to see where brokers route orders, what consideration they receive, and what execution quality they receive on a security, order size, order type basis, but is simply impossible with the current reporting structure.

The result of all of these issues is that the only people who have a clean and complete dataset of retail execution quality are the wholesalers and the retail brokers. Ironically, these are the entities also claiming that “the data” says the status quo is the best possible scenario for retail investors, however they are not publicly offering datasets to independent third parties to be analyzed and typically oppose regulatory changes to reporting to increase transparency.